REMARKS

Introduction

In response to the Office Action dated September 17, 2008, Applicants have amended claims 1 and 9. The pertinent limitations of claim 2, previously dependent upon claim 1, have been incorporated into claim 1, and claim 2 cancelled. The pertinent limitations of claim 10, previously dependent upon claim 9, have been incorporated into claim 9, and claim 10 cancelled. Care has been taken to avoid the introduction of new matter. Claims 8 and 16 are withdrawn. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that all pending claims are in condition for allowance.

Claim Rejection Under 35 U.S.C. §§ 102 /103

Claims 1-7 and 9-15 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,935,722 to Moorhead et al. ("Moorhead"). Applicants traverse.

In the Response to Arguments section, the Examiner contends that the lower film surrounding a surface of each metal magnetic particle could be interpreted as an oxide layer, asserting that atmospheric considerations include dust or oxygen. The Examiner concludes that the claimed properties are deemed to be necessary/inherent to the structure since Moorhead teaches an invention with a substantially similar structure and chemical composition as the claimed invention.

When the Examiner relies on inherency, it is incumbent upon the Examiner to specifically point out where the prior art justifies this statement. Moorhead does not disclose or suggest a lower film surrounding a surface of each metal magnetic particle including a

nonferrous material, as required by amended claims 1 and 9. Further, the Examiner did not provide proper motivation to select a soft magnetic material with a lower film including ***a nonferrous metal having a diffusion coefficient with respect to the at least one of oxygen and carbon included in the upper film that is smaller than such diffusion coefficient of iron***, as required by amended claim 9.

An aspect of amended claims 1 and 9 is a lower film including a nonferrous metal that is formed on a surface of a metal magnet particle including iron, and an insulating upper film that is further formed on a surface of the lower film. Another aspect of amended claims 1 and 9 is that the main component of the lower film is selected from the group consisting of aluminum, chromium, silicon, titanium, vanadium and nickel. Thereby, as taught in the instant specification, the lower film includes an oxide or carbide that is a reaction product of any of these nonferrous metals with oxygen or carbon (*see, e.g.,* Fig. 2; pg. 13, lines 7-15 of the originally filed specification). The presence of any of the above-described nonferrous metals reacting with an oxygen atom or carbon atom is indispensable for the lower film, and the oxide or carbide is in an unsaturated state.

On the other hand, Moorhead discusses that the metal powder is ***an alloy*** of cobalt, vanadium or chromium. The claimed subject matter, however, has a metal magnet particle, <u>not</u> an alloy, that is covered with the above-described nonferrous metal, such as, aluminum. The composite structure of Moorhead is ***structurally different*** than the presently claimed subject matter. Further, Moorhead describes using alumina in bonding media. *Assuming arguendo*, even if the alumina of Moorhead relates to a metal powder, Moorhead fails to disclose or suggest that the lower film surrounds a surface of each metal magnetic particle that includes aluminum, chromium, silicon, titanium, vanadium, and nickel, as required by amended claim 1. Further, it

is well known by persons skilled in the art that when alumina is used for the lower film, the oxide is saturated within the lower film, thus the gettering effect of the presently claimed subject matter cannot be achieved.

As Moorhead is *silent* as to a lower film surrounding a surface of each metal magnetic particle including a nonferrous material, it cannot provide a basis for asserting inherency of the claimed absolute value of heat generated when a primary compound is produced by a reaction between the nonferrous metal and at least one of oxygen and carbon included in the insulating upper film. Thus, Moorhead fails to disclose or infer, "...a lower film surrounding a surface of said metal magnetic particle; and an insulating upper film surrounding a surface of said lower film and including at least one of oxygen and carbon, wherein a main component of said lower film is at least one selected from the group consisting of aluminum, chromium, silicon, titanium, vanadium and nickel, and an absolute value of heat generated when a primary compound is produced by a reaction between said at least one selected from the group consisting of aluminum, chromium, silicon, titanium, vanadium and nickel and at least one of oxygen and carbon included in said insulating upper film is greater than an absolute value of heat generated when a primary compound is produced by a reaction between iron and said at least one of oxygen and carbon," as recited in amended claim 1.

Similarly, the nonferrous metal has a diffusion coefficient with respect to at least one of oxygen and carbon included in the upper film that is ***smaller*** than such diffusion coefficient of iron, as required by claim 9. The diffusion coefficient D is measured using the formula: D_o x exp(-Q/RT) where D_o is the diffusion frequency coefficient, R is a gas constant 8.315 (J/mole/K), and temperature in Kelvin degrees. Thereby, as taught in the instant specification, the diffusion rate of oxygen and carbon toward the metal magnetic particle from the upper film is reduced at the

lower film, which prevents oxygen and carbon from infiltrating into the metal magnetic particle that is known as the **barrier effect** (*see, e.g.,* pg. 3, line 19-pg. 4, line 4; Table 2 of the originally filed specification). However, Moorhead does not disclose or suggest this, and apparently is unaware of the unexpected improvement in minimizing the increase in impurity concentration in the metal magnetic particle, and thus prevents deterioration in magnetic properties of the metal magnetic particle made possible by the claimed soft magnetic material.

Therefore, Moorhead fails to disclose or suggest, "...a lower film surrounding a surface of said metal magnetic particle; and an insulating upper film surrounding a surface of said lower film and including at least one of oxygen and carbon, wherein a main component of said lower film is at least one selected from the group consisting of aluminum, chromium, silicon, titanium, vanadium and nickel, and said at least one selected from the group consisting of aluminum, chromium, silicon, titanium, vanadium and nickel has a diffusion coefficient with respect to the at least one of oxygen and carbon included in said upper film that is smaller than such diffusion coefficient of iron," as recited in amended claim 9.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities," *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that Moorhead does not anticipate amended claims 1 and 9, nor any claim dependent thereon. The dependent claims are allowable for at least the same reasons as claims 1 and 9.

As obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to

do so found either explicitly or implicitly in the references themselves or in the knowledge readily available to one of ordinary skill in the art. *In re Kotzab*, 217 F.3d 1365, 1370 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). There is no suggestion in Moorhead to modify the lower film to include at least one of the group consisting of aluminum, chromium, silicon, titanium, vanadium, and nickel, nor does common sense dictate the Examiner-asserted modifications. The Examiner has not provided any evidence that there would be any obvious benefit in making the asserted modification of Moorhead. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007).

The only teaching of the lower film including at least one of the group consisting of aluminum, chromium, silicon, titanium, vanadium, and nickel is found in Applicants' disclosure. However, the teaching or suggestion to make a claimed combination and the reasonable expectation of success must not be based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claims 3, 5, 11, and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Moorhead, further in view of U.S. Patent No. 4,919,734 to Ochiai et al.

The dependent claims are allowable for at least the same reasons as claims 1 and 9.

Accordingly, in view of the foregoing, withdrawal of the foregoing rejections is respectfully requested.

Conclusion

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this

Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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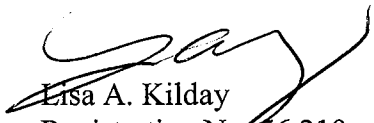

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